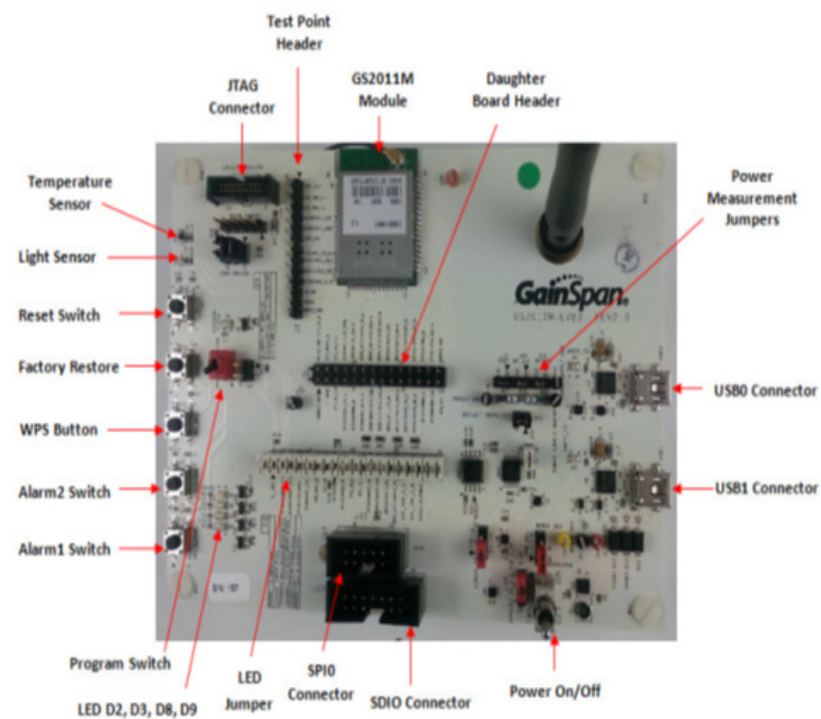


# GS2K S2W Quick Start Guide

## Supports GS2000 Based Modules

This Quick Start Guide will walk you through the steps to setup and demonstrate the S2W application on the GS2000 based module EVBs.

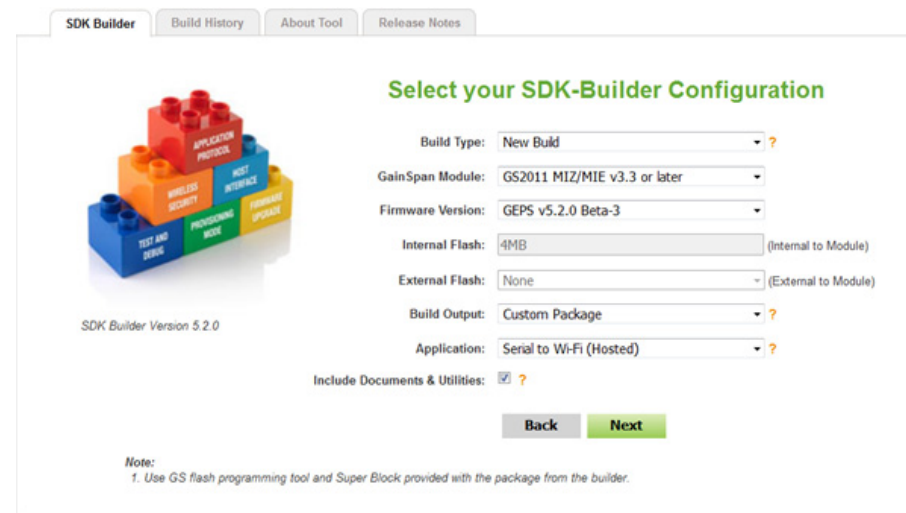


You will need the following items:

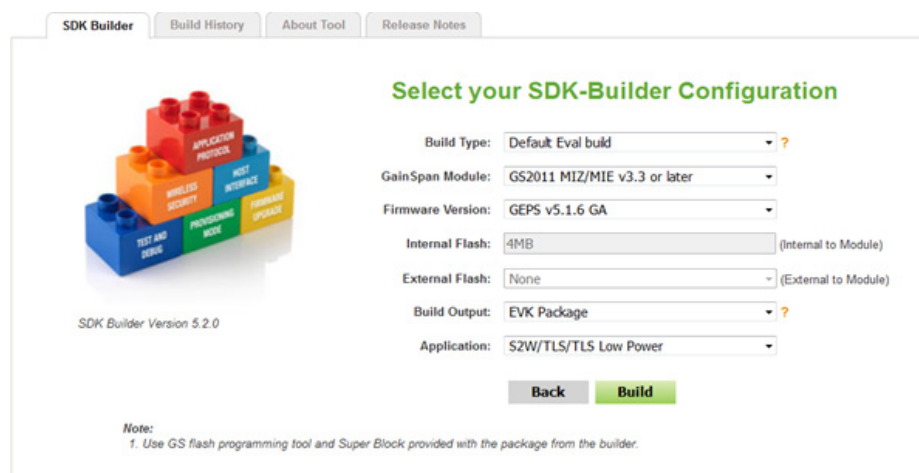
- Quick Start Guide (this document)
- GS2000 based module EVB Hardware
- USB to mini-USB Cable
- S2W binaries from SDK Builder Tool

## 1 Build the Package

**Step 1** Login at <https://wifi.telit.com/secure/login>, under “SDK Builder” tab, select Default Evaluation Build or New Build, Module, Firmware Version, Build Output, and S2W binaries to build. Following figure shown the SDK Builder screen for building the S2W custom binaries.



**Step 2** Click the “Build” button to generate the S2W EVK packages or Next button to build the binaries by selecting the custom configuration. The build configuration will be submitted and a Confirmation email will be sent notifying that the S2W binary/AEK Package is complete and ready to download the zip file Containing the firmware and binaries used to program the board.



## 2 Program the GS Module

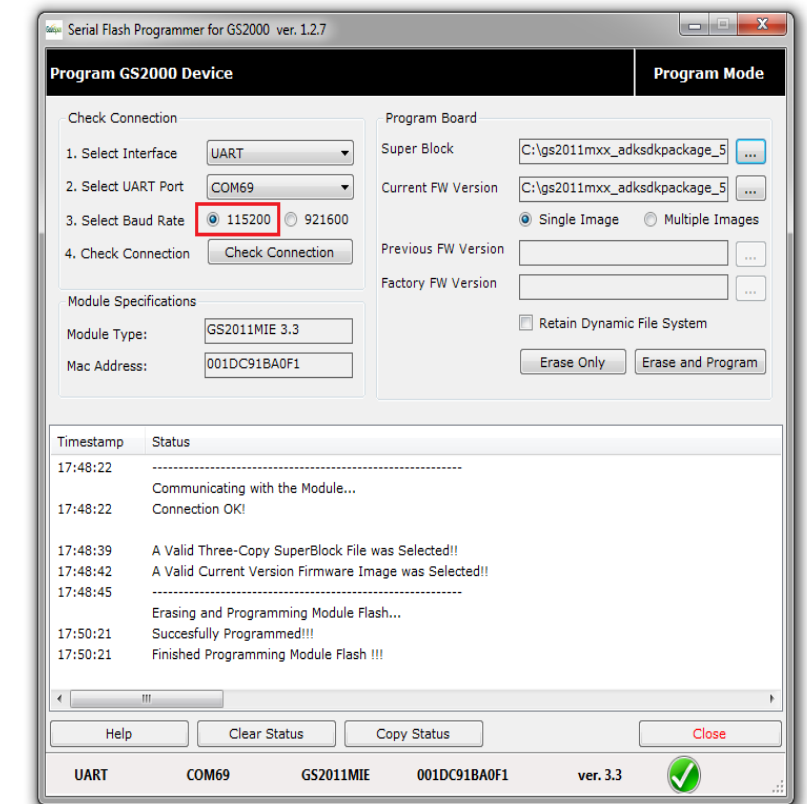
**Step 1** Plug the mini-USB cable into the USB0 port on the GS2K Evaluation board and plug the other end into a USB port on your computer or laptop.

**Step 2** Turn the PROGRAM/RUN switch to PROGRAM mode on the GS2K board

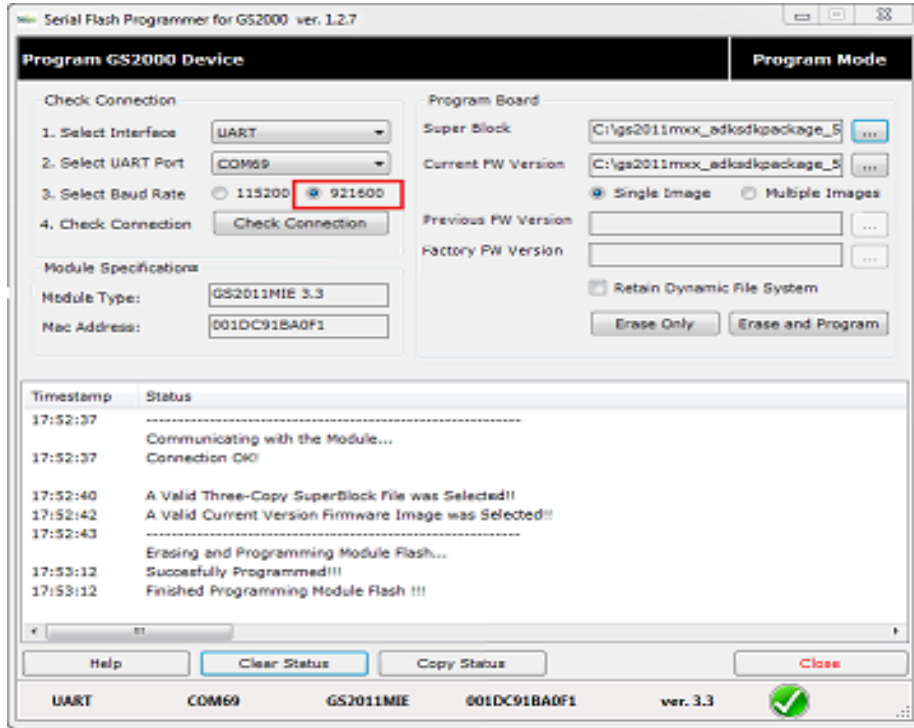
**Step 3** Install and run the GainSpan Serial Flash Programmer GUI application.

**Step 4** Select the options to program the GS2K Evaluation board. Load the S2W firmware and binaries for the S2W AEK from the Downloaded zip folder. Close the GUI application when complete.

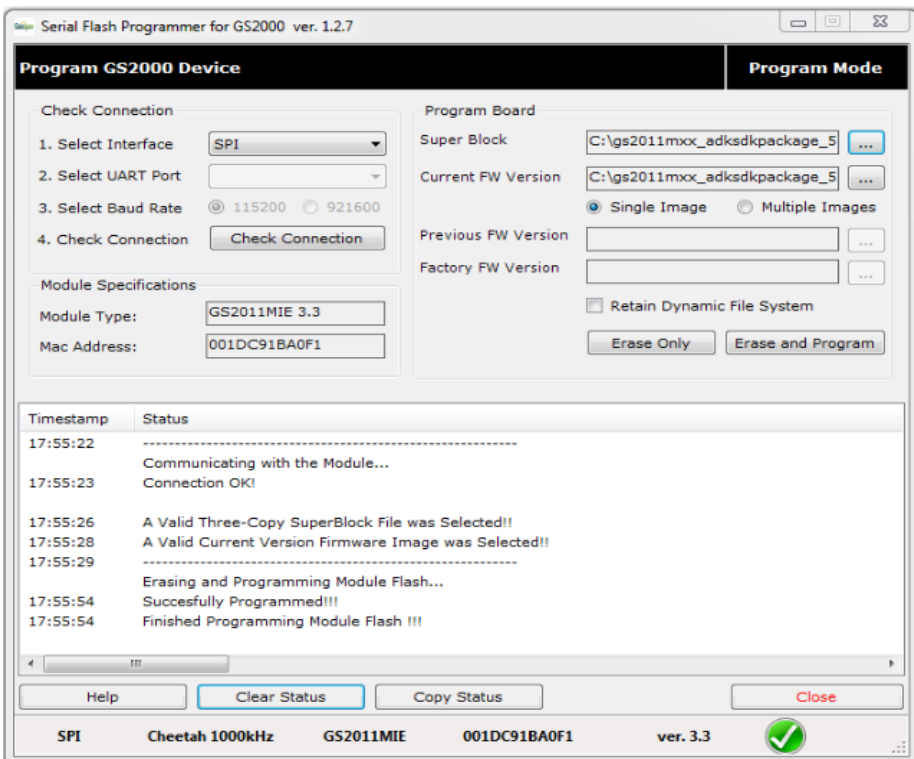
a) PROGRAM GS2K EVAL Board with UART0 115200 baud rate.



b) PROGRAM GS2K EVAL Board with UART0 921600 baud rate. Short J13 for 921600 baud rate. Default baud rate is 115200 without J13 short.



c) PRGORAM GS2K EVAL Board with SPI Interface using Cheetah/Aardwerk tools.

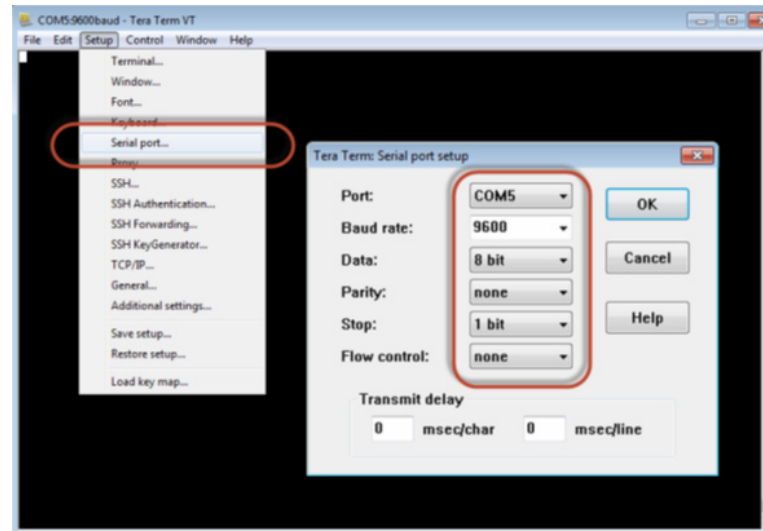


**Step 5** Put the PROGRAM/RUN switch to RUN mode and perform a power cycle.

### 3 Configure the Serial COM Port

**Step 1** Open a Serial Terminal Emulation Software of your choice. Select the serial COM port associated with the board. The example TeraTerm VT can download : <http://tssh2.sourceforge.jp/>

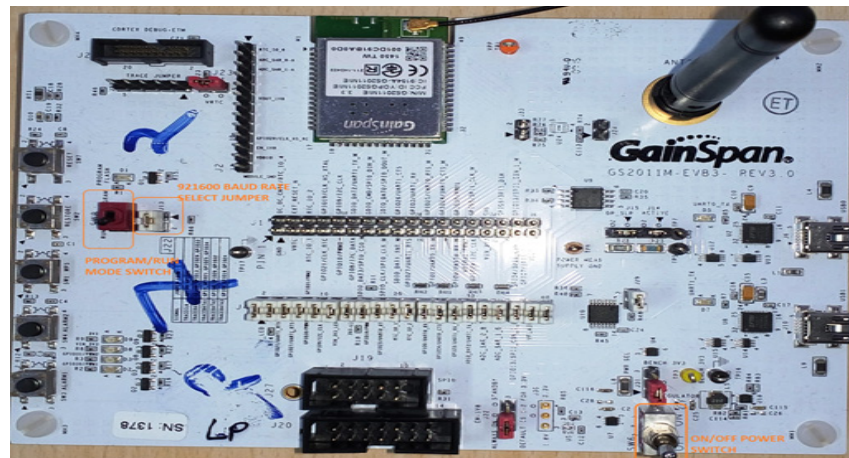
**Step 2** Setup the Serial COM port, Baud Rate, Data bit, Parity, Stop bit, and Flow control.



### 4 Run the Serial-to-WiFi Application

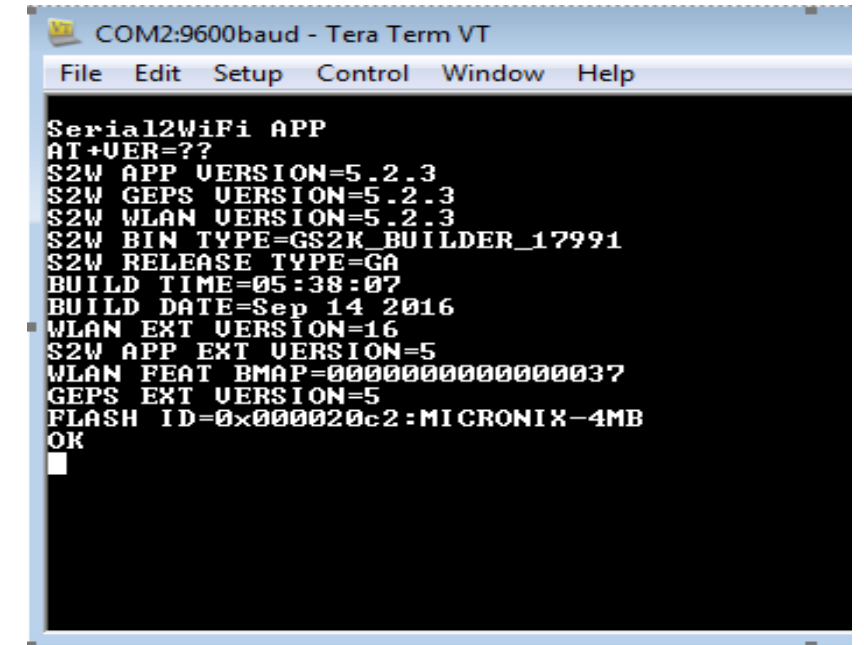
**Step 1** Ensure that the RUN/PROGRAM switch is in the RUN Position.

**Step 2** Turn the ON/OFF switch to the ON position. The Tera Term VT prompt will display Serial2WiFi APP.



**Step 3** Enter a basic AT command (AT+VER=??) to verify that the Evaluation board is working, now the Serial2WiFi firmware version Information will display.

**NOTE:** Kindly refer the S2W adapter guide for more details on AT commands.



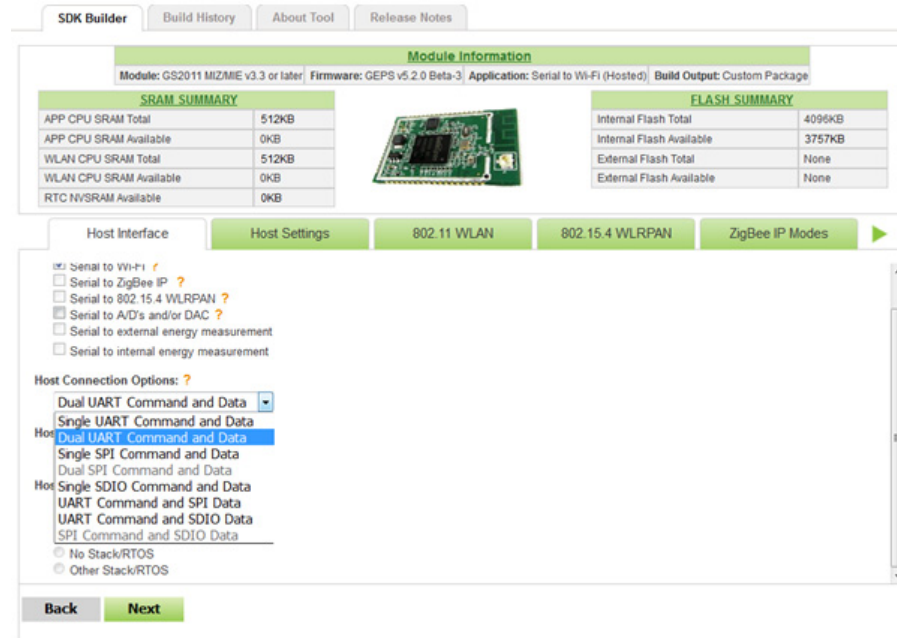
### 5 S2W with Dual Interface

**Step 1** To create the Dual Interface binaries from SDK Builder tool, select the DUAL Interface option from HOST Interface options. First UART interface is used for AT command and second interface (UART/SPI/SDIO) used for data transfer mode using ESC sequence.

Dual Interface combinations are as follows:

- a. UART0 Command and UART1 Data
- b. UART0 Command and SPI Data
- c. UART0 Command and SDIO Data





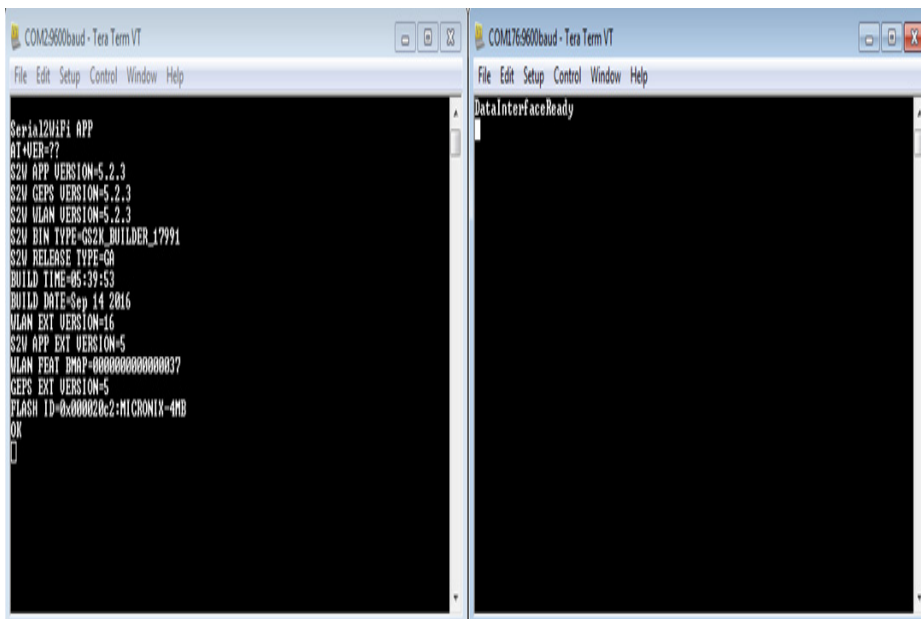
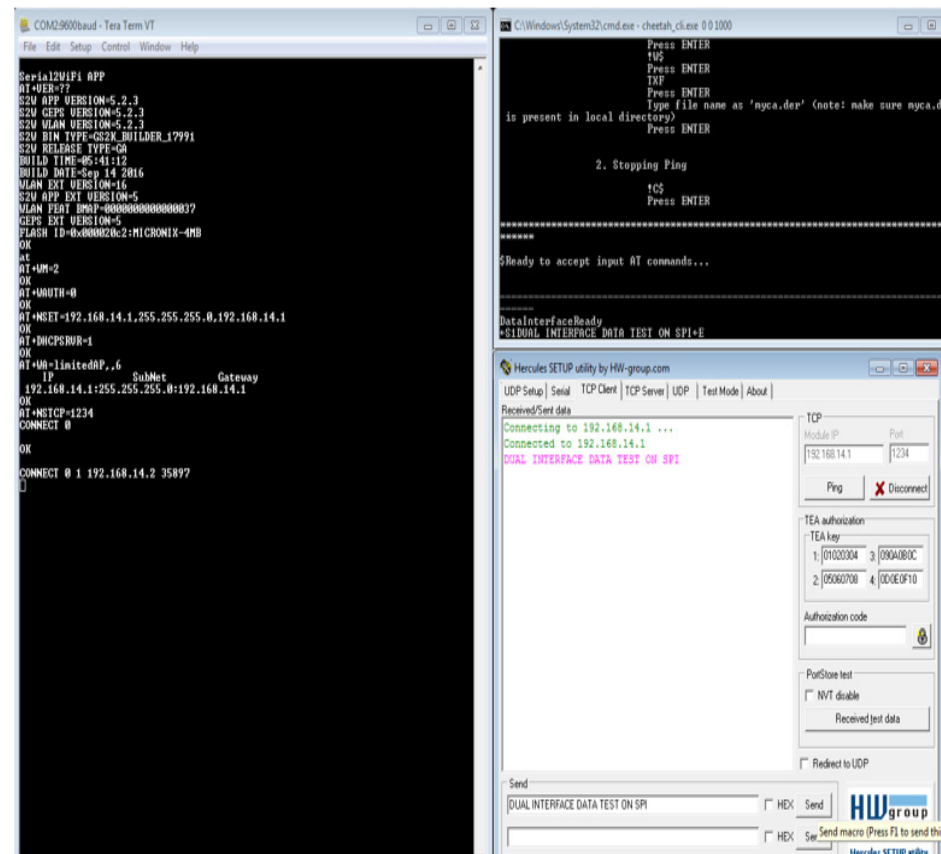
**Step 2** S2W sends Serial2Wifi APP message on UART0 interface after power cycling GS module and sends DataInterfaceReady message on Secondary interface UART1/SPI/SDIO. UART interface does not accept any AT commands until the SPI master reads DataInterfaceReady message.

**NOTE:** Primary interface is used for command communication and Secondary interface is used for Data communication.

The configuration parameters for the secondary interface is given to the user when the Serial-to-WiFi adapter firmware image is created.

**Step 3** Dual interface is setup with UART0 as primary interface for command mode and SPI interface for data mode. Cheetah application tool is used for SPI interface data mode setup and Hercules tool for TCP server setup on Windows7 laptop.

Commands are issued on primary UART0 interface and SPI interface Transmit/Receive the data.



## Technical and Product Support

For any clarification, technical and product support, please email to Telit Technical Support at: [TS-SRD@telit.com](mailto:TS-SRD@telit.com)

We recommend adding "Wi-fi" in subject of the email. For example, the subject of email can be "Wi-Fi: Association failing", "Wi-Fi: SPI Driver Issue".

Also, in description of your email, please provide details about the issue, product, module and use case including software firmware version, module version and type, application being used, customizations done to application, use case and issue frequency and ability to recreate it.

## Information

For information, please refer to the following documents:

- **GS2K SDK Builder User Guide**
  - Configuring and generating custom S2W firmware binary images from web portal based on features required
- **GS2K Module Programming User Guide**
  - How to Program the module
- **GS2K SDK Application Programming Guide**
  - If SDK is purchased, for setting up, compiling, and debugging firmware using IAR IDE. This also has reference codes for various use cases, debugging mechanisms, detailed description of various modules and features and much more
- **GS2K S2W Use Case Reference Guide**
  - For sequence of AT commands to be used for any particular use case
- **S2W Adapter Command Reference Guide**
  - For detailed description of every AT command
- **GS2K Live Calibration Application Note**
  - For calibrating the module for optimum reception, which needs to be done once in the lifetime of the product unless the flash is erased completely for some reason
- **GS2K Memory Map and File System Application Note**
  - Provides the memory architecture of the Wi-Fi modules and provide details about types of memory, location, and content of various items in these memory locations

For further information, please visit the website link: <https://www.telit.com/products/wifi-and-bluetooth/#wifi>